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Jessica Pallach

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Pre Application of:** Sporer et al.

**Serial No. :** 09/889,697

**Filed:** July 18, 2001

**Title:** SYSTEM AND METHOD FOR EVALUATING THE QUALITY OF MULTI-CHANNEL AUDIO SIGNALS

**Docket No:** SCHO0057

**Art Unit:** Not Assigned

**Examiner:** Not Assigned

December 6, 2001

Assistant Commissioner for Patents  
Washington, DC 20231

**TRANSMITTAL OF TRANSLATION OF THE IPER**

Dear Sir:

Enclosed for the above-referenced patent are the following:

1. Translation of the International Preliminary Examination Report; and
2. Return Postcard.

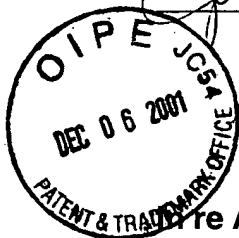
The Commissioner is authorized to charge any additional fees, or credit any overpayments, to Deposit Account No. 07-1445 (Order No. SCHO0057). A copy is enclosed for this purpose.

Respectfully submitted,



Michael A. Glenn  
Reg. No. 30,176

Customer No. 22862



## PATENT COOPERATION TREATY

**PCT**  
**NOTIFICATION OF TRANSMITTAL**  
**OF COPIES OF TRANSLATION**  
**OF THE INTERNATIONAL PRELIMINARY**  
**EXAMINATION REPORT**

(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

SCHOPPE, Fritz  
 Schoppe, Zimmermann & Stöckeler  
 Postfach 71 08 67  
 D-81458 München  
 ALLEMAGNE

Date of mailing (day/month/year) 26 September 2001 (26.09.01)	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <b>IMPORTANT NOTIFICATION</b> </div>
Applicant's or agent's file reference FH991206PCT	
International application No. PCT/EP99/09979	International filing date (day/month/year) 15 December 1999 (15.12.99)
Applicant FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V. et al	

**1. Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

**2. Transmittal of the copy of the translation to the elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

US


The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

EP

**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

**It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.**

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. (41-22) 740.14.35	Authorized officer  <div style="text-align: center;">           Pascal Piriou       </div> Telephone No. (41-22) 338.83.38
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Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FH991206PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP99/09979	International filing date (day/month/year) 15 December 1999 (15.12.99)	Priority date (day/month/year) 21 January 1999 (21.01.99)
International Patent Classification (IPC) or national classification and IPC H04R 29/00		
Applicant FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input checked="" type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>

Date of submission of the demand 18 August 2000 (18.08.00)	Date of completion of this report 10 November 2000 (10.11.2000)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP99/09979

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_ 1-14 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_ 1-21 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
pages \_\_\_\_\_ 1/3-3/3 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 99/09979

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1-21	YES
	Claims		NO
Inventive step (IS)	Claims	1-21	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims		NO

### 2. Citations and explanations

Reference is made to the following documents:

D1: WO-A-97/25834 (VIRTUAL LISTENING SYSTEMS INC;  
TUCKER TIMOTHY J (US); GREEN DAVID) 17 July 1997  
(1997-07-17),

D2: EP-A-0 165 733 (PIONEER ELECTRONIC CORP) 27  
December 1985 (1985-12-27).

#### Claim 1

The method according to D1 pertains to the processing of a multi-channel signal. Said document discloses neither a device for converting the audio test signal according to the present Claim 1 nor a device for assessing the quality of the audio test composite signals while taking into consideration the audio reference composite signals to provide an indication of the quality of the audio test signal.

Document D2 discloses a method and a device for measuring and correcting acoustic characteristics in a sound field.

Said document shows neither a device for converting the audio test signal into a first and a second reference composite signal according to the present Claim 1 nor a device for assessing the quality of the audio test composite signals while taking into consideration the audio reference composite signals to provide an indication of the quality of the audio test signal.

The subject matter of the present Claim 1 differs from that of the prior art substantially in that the claimed device has an apparatus for transforming the audio test signal into a first and a second reference composite signal (see paragraph 2 of the present Claim 1) and an apparatus for assessing the quality of the audio test composite signals while taking into consideration the audio reference composite signals to provide an indication of the quality of the audio test signal.

Since these features are neither known nor derivable from the prior art, Claim 1 fulfils the requirements of PCT Article 33(2) and (3).

Claims 2 to 13

Dependent Claims 2 to 13 pertain to further embodiments of the device according to Claim 1.

Therefore, in combination with Claim 1, these claims likewise fulfil the requirements of PCT Article 33(2) and (3).

Claim 14

The conclusion pertaining to device Claim 1 readily applies to method Claim 14.

Therefore, Claim 14 likewise fulfils the requirements of PCT Article 33(2) and (3).

Claims 15-21

Dependent Claims 15 to 21 pertain to further steps of the method according to Claim 14.

Therefore, in combination with Claim 14, these claims likewise fulfil the requirements of PCT Article 33(2) and (3).

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

Contrary to PCT Rule 5.1(a)(ii), the description does not cite D1 or D2 or indicate the relevant prior art disclosed therein.

There is a typographical error in the third paragraph on page 1 and in the second paragraph of page 2. The cited document is DE-C-196 47 399.